| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/765,809 | 01/27/2004 | Aniruddha Sane | 15158US01 | 2452 |

23446        7590        08/18/2009
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| EXAMINER |
|---|
| WONG, ALLEN C |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2621 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 08/18/2009 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) |
| **Office Action Summary** | 10/765,809 | SANE, ANIRUDDHA |
| | Examiner | Art Unit | |
| | Allen Wong | 2621 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)☒ Responsive to communication(s) filed on *06 May 2009*.

2a)☒ This action is **FINAL**.    2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)☒ Claim(s) *1,4-6,8-10,15-17,22 and 23* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10,15-17,22 and 23* is/are allowed.

6)☒ Claim(s) *1,4,5,8 and 9* is/are rejected.

7)☒ Claim(s) *6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 January 2004* is/are:  a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1.      Applicant's arguments filed 5/6/09 with respect to claims 1, 4, 5, 8 and 9 have

been considered but are moot in view of the new ground(s) of rejection.

The minor objection to claims 6 and 10 is withdrawn.

The 35 U.S.C.101 rejection is withdrawn.

Claim 6 is objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Claims 10, 15-17, 22 and 23 are patentable over the prior art.

### *Claim Rejections - 35 USC § 103*

1.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.      Claims 1, 4, 5, 8 and 9 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Wada (2003/0026487) in view of Nagai (5,852,469).

Regarding claim 1, Wada discloses a method for decoding an encoded video

data stream, the method comprising:

receiving, at a decoder (fig.7, element 13), a first portion of an encoded two-

dimensional block of pixel data immediately followed by a second encoded two-

dimensional block of pixel data, the second block followed by another portion of the

encoded two-dimensional block of pixel data (paragraph [0044], fig.7, element 13 is a

variable length decoder that receives portions of block data that includes the stored

encoded two-dimensional block of pixel data as noted with luminance blocks Y0, Y1,

Y2, Y3 and chrominance blocks Cr and Cb, and that Y0 block can be considered the

first portion of the encoded two-dimensional pixel block, and the Y1 block can be

considered the second two-dimensional block, and Y2 block is another portion of the

encoded two-dimensional pixel block, wherein blocks Y0, Y1, Y2, Y3, Cr, and Cb are

two-dimensional 8x8 pixel blocks as illustrated in fig.3 and paragraph [0042]); and

decoding the video data stream (fig.7, element 13 decodes the video data

stream, see paragraph [0045]).

Wada discloses receiving the encoded two-dimensional block of pixel data is

immediately followed by the another portion of the encoded two-dimensional block of

pixel data (paragraph [0044], fig.7, element 13 is a variable length decoder that

receives portions of block data that includes the stored encoded two-dimensional block

of pixel data as noted with luminance blocks Y0, Y1, Y2, Y3 and chrominance blocks

Cr and Cb, and that Y0 block can be considered the first portion of the encoded two-

dimensional pixel block, and the Y1 block can be considered the second two-

dimensional block, and Y2 block is another portion of the encoded two-dimensional

pixel block, wherein blocks Y0, Y1, Y2, Y3, Cr, and Cb are two-dimensional 8x8 pixel

blocks as illustrated in fig.3 and paragraph [0042]).  Wada does not disclose generating

a concatenated video data stream comprising the first portion and the second portion.

However, Nagai discloses the generation of concatenating video data stream

comprising the first portion and the second portion (col.18, ln.1-10, in fig.18, Nagai

discloses the region reordering table 1103 for reordering regions of the encoded image

data for display as one whole image, and the output of element 1103 is used to

influence the image signal reorderer 1119 to yield the display output for viewing; col.18,

ln.45-65, Nagai discloses the coding and decoding of two layers, the upper and lower

layers for coding the video image data; col.20, ln.31-39, in fig.15, Nagai discloses the

first embodiment of fig.7 shows the encoding of image data by splitting the regions of

the image data and later when decoding the image data in fig.18, the upper layer and

lower layer is reunited for viewing at the display output).  Therefore, it would have been

obvious to one of ordinary skill in the art to combine the teachings of Wada and Nagai,

as a whole, for accurately, efficiently decoding image data so as to preserve high

image quality (Nagai col.5, ln.28-33).

Regarding claim 4, Wada discloses storing the first portion of the encoded two-

dimensional block of pixel data in a first memory region (paragraph [0044], note the

blocks Y0, Y1, Y2, Y3, Cr, Cb are stored into memory units 0, 1, 2, 3, 4 and 5,

respectively); and storing the second encoded two-dimensional block of pixel data in

the first region of memory (paragraph [0044] , note the blocks Y0, Y1, Y2, Y3, Cr, Cb

are stored into memory units 0, 1, 2, 3, 4 and 5, respectively); and storing another

portion of the encoded two-dimensional of pixel data in a second region of memory

(paragraph [0044] , note the blocks Y0, Y1, Y2, Y3, Cr, Cb are stored into memory

units 0, 1, 2, 3, 4 and 5, respectively).

Regarding claim 5, Wada discloses wherein storing the first portion of the encoded data and the second portion of the encoded data further comprises: storing the first portion and the second portion of the encoded  two-dimensional block of pixels or the second encoded two-dimensional block of pixel data in the first region until either a predetermined number of bytes of the first or second portion are stored in the first region or an end of block indicator is received (paragraph [0044], note the blocks Y0, Y1, Y2, Y3, Cr, Cb are stored into memory units 0, 1, 2, 3, 4 and 5, respectively, also note in fig.6, note there are end of block indicators EOBs present); and if an end of block indicator is received storing the remainder first portion and the second portion of the encoded two-dimensional block of pixels or the second encoded two-dimensional block of pixel data (paragraph [0043], Wada discloses storing the remainder of the two-dimensional pixel encoded data if an EOB indicator is received).

Regarding claim 8, Wada discloses receiving input from the decoder, the input associated with the size of the decoded video data stream (paragraph [0044], fig.7, element 13 is a variable length decoder that receives portions of block data that includes the stored encoded two-dimensional block of pixel data as noted with luminance blocks Y0, Y1, Y2, Y3 and chrominance blocks Cr and Cb, and that Y0 block can be considered the first portion of the encoded two-dimensional pixel block, and the Y1 block can be considered the second two-dimensional block, and Y2 block is another portion of the encoded two-dimensional pixel block, wherein blocks Y0, Y1, Y2, Y3, Cr, and Cb are two-dimensional 8x8 pixel blocks as illustrated in fig.3 and paragraph [0042], and that the size of the decoded video data is obtained).

Regarding claim 9, Wada discloses wherein the input determines the amount of

video data stream to be serially outputted to the decoder (paragraph [0044], Wada

discloses the first portion of the encoded video stream is received at element 13).

Veltman does not specifically disclose the concatenated video data stream.  However,

Nagai discloses the generation of concatenating video data stream comprising the first

portion and the second portion (col.18, ln.1-10, in fig.18, Nagai discloses the region

reordering table 1103 for reordering regions of the encoded image data for display as

one whole image, and the output of element 1103 is used to influence the image signal

reorderer 1119 to yield the display output for viewing; col.18, ln.45-65, Nagai discloses

the coding and decoding of two layers, the upper and lower layers for coding the video

image data; col.20, ln.31-39, in fig.15, Nagai discloses the first embodiment of fig.7

shows the encoding of image data by splitting the regions of the image data and later

when decoding the image data in fig.18, the upper layer and lower layer is reunited for

viewing at the display output).  Therefore, it would have been obvious to one of

ordinary skill in the art to combine the teachings of Wada and Nagai, as a whole, for

accurately, efficiently decoding image data so as to preserve high image quality (Nagai

col.5, ln.28-33).

## *Allowable Subject Matter*

Claim 6 is objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Claims 10, 15-17, 22 and 23 are allowed.

The following is an examiner's statement of reasons for indicating allowable

subject matter: The prior art does not disclose wherein the generating a concatenated

encoded video stream comprises: (b1) serially outputting from the first memory region to

a concatenator until either the predetermined number of bytes are received or the end

of block indicator is received; (b2) if the predetermined number of bytes is serially output

during step bl, serially outputting from the second memory region to the concatenator

until an end of block indicator is received; (b3) repeating steps b1 and b2, as disclosed

in claim 6.  Also, the prior art does not specifically disclose the combination of limitations

as disclosed in claim 10: a system for decoding an encoded video data stream, the data

stream comprising a plurality of encoded blocks of data pixels and a plurality of end of

block indicators, the system comprising: an input for receiving the encoded video data

stream comprising the plurality of encoded blocks of data pixels and the plurality of end

of block indicators; a first memory buffer for storing either portions of the encoded video

data stream of predetermined size or until the portions of the encoded video data

stream until the portions include an end of block indicator received at the input; a

second memory buffer for storing remainders of portions when the portions include an

end of block indicator received at the input; a concatenator for concatenating from the

first memory buffer and the second memory buffer, wherein the concatenator serially

outputs data from the first memory buffer until either a predetermined number of bytes

are serially output or an end of block is encountered and if the predetermined number of

bytes are serially output from the first buffer, serially outputting from the second buffer

until an end of buffer indicator is received, to obtain a concatenated video data stream;

and a decoder for decoding the concatenated video data stream.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee.  Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

### *Conclusion*

3.      Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.  Accordingly, **THIS ACTION IS MADE FINAL**.  See MPEP

§ 706.07(a).  Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action.  In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

### *Contact Information*

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Allen Wong whose telephone number is (571) 272-7341.

The examiner can normally be reached on Mondays to Thursdays from 8am-6pm

Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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8/17/09